



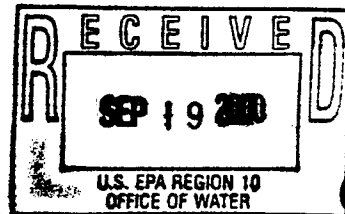
STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor  
C. Stephen Allred, Director

September 13, 2000

Mr. Robert Robichaud  
United States Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, OW-130  
Seattle, WA 98101



RE: CWA §401 Certification of NPDES Permit No. ID-002646-8  
Hecla Mining Company, Grouse Creek Unit Outfall 002

*Bob*  
Dear Mr. Robichaud:

The State of Idaho Department of Environmental Quality (IDEQ) has considered significant public comments and has reviewed the facts and information presented in the draft National Pollution Discharge Elimination System (NPDES) permit No. ID-002646-8 for the Hecla Mining Company, Grouse Creek Unit Outfall 002 discharge to the receiving water named Jordan Creek (latitude 44° 25' 19" N and longitude 114° 43' 53" W). This letter will serve as the State of Idaho's water quality certification pursuant to the provisions of Section 401 of the Federal Water Pollution Control Act, (Clean Water Act) as amended, 33 USC Section 1341, that if Hecla Mining Company's, Grouse Creek Unit complies with the terms and conditions imposed by this permit and the conditions set forth in this 401 Certification, that there is a reasonable assurance the discharge will comply with the applicable requirements of Sections 208 (e), 301, 302, 303, 306, 307 of the Clean Water Act, including the Idaho Water Quality Standards and Wastewater Treatment Requirements (IDAPA 58.01.02, Water Quality Standards).

Mixing Zone

This certification includes authorization of the mixing zone for the Hecla Mining Company, Grouse Creek Unit outfall 002, pursuant to the mixing zone policy set forth in the Idaho Water Quality Standards, IDAPA 58.01.02.060. This certification is based on consultations with the U.S. Environmental Protection Agency (EPA) staff and the information presented in the report entitled "Mixing Zone Information For Discharge Point 002 Hecla Mining Company, Grouse Creek Unit".

The IDEQ finds the following mixing zones to be protective of the designated uses in Jordan Creek and authorizes the EPA to use these mixing zones in determining and recalculating the effluent limits for the listed metals and WAD Cyanide:

Parameter	Mixing Zone (% volume)
Cadmium	75%
Chromium	100%
Copper	50%
Lead	100%
Mercury	100%
Silver	25%
Zinc	50%
WAD Cyanide	100%

These authorized mixing zones minimize the zone of initial dilution and provide for a zone of passage for fish based on the avoidance threshold concentrations for copper and zinc. According to the mixing zone models provided these percentages minimize the zone of initial dilution to, at least within a few feet of the outfall. The IDEQ establishes the following mixing zone conditions as part of issuance of these mixing zones:

1. Hecla Mining Company, Grouse Creek Unit shall annually conduct a bioaccumulation study of mercury accumulation in fish tissues and submit the results to IDEQ, USEPA. These studies must determine the level of mercury accumulated in fish present in Jordan creek. The studies shall collect fish above and below outfall 002. Sculpins shall be the test species, as these fish are not on USFWS threatened or endangered species list, are not stocked by Idaho Department of Fish and Game, and have been reported in Jordan Creek. If the level of mercury present in fish tissue exceeds 0.3 mg Hg /kg fresh weight and should the downstream mercury levels show a statistically significant increase in comparison with upstream fish, then the Hecla Mining Company, Grouse Creek Unit mixing zone authorization for mercury shall be reduced to zero. See attached "Mercury Bioaccumulation Monitoring and Toxicity Testing Recommendations."

The bioaccumulation study may be conducted in conjunction with any such studies as may be required or recommended under the CERCLA Consent Order; and

2. Hecla Mining Company, Grouse Creek Unit shall, in addition to the WET testing requirements stipulated in the draft final NPDES permit, annually conduct an acute bioassay using rainbow trout following adopted WET testing protocols. See attached "Mercury Bioaccumulation Monitoring and Toxicity Testing Recommendations."

#### Compliance Schedule

This certification also includes authorization, pursuant to the Water Quality Standards, IDAPA 58.01.02.400.03, for a five year compliance schedule to meet the metal and WAD cyanide effluent limits as set forth in the proposed final permit, with the following interim limits:

1. Existing NPDES permit limits shall be effective until October 1, 2003;
2. Hecla shall propose interim NPDES permit limits to be effective after October 1, 2003 up until year 5; additionally, there shall be interim steps completed from October 1, 2003 to year 5 of the permit as outlined in the compliance schedule set forth below and reported in the annual report described below;
3. Proposed final permit limits shall be effective five years from the date of permit issuance.

The IDEQ places the following compliance schedule conditions on this permit as part of authorization of the compliance schedule:

1. Hecla Mining Company, Grouse Creek Unit shall submit to IDEQ and EPA for approval a compliance schedule plan that includes a schedule for water treatment system design, construction schedule, and pilot operation testing schedule as proposed in the "Mixing Zone Information For Discharge Point 002" report and as requested in "Hecla Mining Company Comments to Grouse Creek Unit Draft NPDES Permit ID-002646-8"; and
2. Hecla Mining Company, Grouse Creek Unit shall annually report the progress made to meet the compliance schedule.

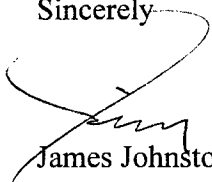
This certification is also conditioned upon the requirement that any material modification of the permit or the permitted activities, including but without limitation, any modifications of the permit to reflect new or modified TMDLs, waste load allocation, site-specific criteria, variances, or other new information, shall first be provided to IDEQ for review to determine compliance with state Water Quality Standards and to provide

additional certification pursuant to Section 401 of the CWA. Finally, IDEQ recommends that any monitoring and/or studies required under this permit be conducted in conjunction with any such studies as may be required or recommended under the CERCLA Consent Order.

This CWA Section 401 Water Quality Certification and associated conditions may be appealed by submitting a request in writing within 35 days for a hearing, pursuant to Title 67, Chapter 52, Idaho Code, and the Rules Governing Contested Case Proceedings and Declaratory Rulings, Title 5, Chapter 3, IDAPA 16.05.03.000 to 16.05.03.999. The request for a hearing must be filed with the hearing coordinator at the following address:

Hearing Coordinator  
Idaho Department of Environmental Quality  
1410 North Hilton  
Boise, ID 83706

Sincerely,



James Johnston  
Regional Administrator  
IDEQ, IFRO

Attachment

cc: Steve Allred, Director, DEQ-State Office  
David Mabe, Water Program Administrator, DEQ-State Office w/Attachment  
Doug Conde, Deputy Attorney General, Office of the Attorney General-DEQ  
John Lawson, Barry Burnell, DEQ-Technical Services  
Barbara Jewell, DEQ-Idaho Falls w/Attachment

# **Mercury Bioaccumulation Monitoring and Toxicity Testing Recommendations**

## **Mercury Bioaccumulation Monitoring**

Under the right circumstances, mercury can bioaccumulate through trophic transfer to fish residues which could be harmful to fish eating birds or wildlife, or to humans. Information reviewed by DEQ indicates that bioaccumulation of mercury at levels harmful to aquatic life are unlikely (e.g. sediment chemistry  $<0.2$  mg Hg/kg dry sediment above and below the discharges, fish tissue residues  $<0.2$  mg Hg/kg fish tissue, fresh weight). However, annual ambient monitoring of fish tissue residue would provide information whether mercury is accumulating in the aquatic food chain to concentrations of concern for protection of human health and the environment.

Objectives of the survey would be to determine if mercury concentrations in fish are elevated above reference conditions and if these elevated concentrations were biologically meaningful. These objectives would be met by answering two questions:

1. *Statistical significance* – Are mercury residues in sculpin tissues downstream of mine discharges to Jordan Creek statistically higher than concentrations upstream of mine discharges?
2. *Biological meaningfulness* – Do whole body mercury concentrations in sculpin or trout exceed 0.3 mg/kg fresh weight?

## **Data interpretation and other recommendations.**

Conclusions whether concentrations are statistically higher should be based upon hypothesis testing between reference and test sites using a t-test, Mann-Whitney test, or other appropriate statistical test, with  $\alpha = 0.05$ . A sample size of at least 16 is estimated to be necessary to provide sufficient statistical power to make meaningful comparisons. This sample size was estimated to be sufficient to detect a true difference of 0.25 mg/kg (fresh weight) mercury whole body tissue concentrations between stations with  $\alpha = 0.05$ . This was calculated using analyses of variance in tissue residues at a nearby system (Thompson Creek). A minimum sample size is needed since the lack of a statistical difference between two samples is only biologically meaningful if the sample size is adequate to show a difference, if in fact one is present. In other words, if sample sizes are very small, two samples may fail to show statistical differences, even if in fact they are

truly different.

If for test questions #1 and #2 above, the answers to *either* test questions #1 and #2 are *no*, then the conclusion will be that adverse biological effects from bioaccumulative chemicals from the mine's discharges are unlikely in Jordan Creek. If the answer to question #2 is *yes*, regardless of the answer to question #1, then IDEQ should be notified of this finding. If the answers to *both* test questions #1 and #2 are *yes*, then further analysis would be necessary. These would be determined by DEQ in consultation with EPA and the discharger. Further analyses would likely include source identification and identification of reduction measures, or food chain studies (e.g. sediment, *aufwuchs*, invertebrates). If test #1 is answered *yes*, and, test #2 exceeds the FDA limit for mercury in fish (1 mg/kg fresh weight), then immediate steps must be taken by the discharger to reduce mercury in their effluent, regardless of any other terms of this certification or compliance schedule.

Sculpin are specified because (1) their limited motility make it likely that they have been exposed to water and food sources in the near vicinity of where they were collected, and (2) they are invertivores, that is, they occupy the same trophic level as salmonids in a stream the size of Jordan Creek.

### **Toxicity Testing to Comply with Water Quality Standards**

Idaho waters are to be free from toxic or deleterious substances in concentrations that impair beneficial uses (IDAPA 58.01.02.200). EPA has advanced an approach of using the whole effluent toxicity testing and field assessments as means to supplement the numeric chemical criteria approach for predicting toxic and non-toxic waters. Unmeasured effluent constituents, additive effects or negative interactions between constituents may make effluents more or less toxic than would be predicted from chemical measurements. Several sections of Idaho's water quality standards give guidance on relating whole effluent toxicity testing (WET) procedures to existing and new discharges. These include complying with narrative criteria that the mixing zone be free from toxic substances in toxic amounts significant to beneficial uses, parameters for determining a healthy, balanced, biological community, and principles to be considered in the application of mixing zones (IDAPA 58.01.02 §003.105; §053.02, §60.g, §60.h; §200). In general, this requires that waters within the mixing zone be free from acute effects (lethality), and waters at the edge of the mixing zone be free from acute and chronic effects (lethality and sublethal effects).

EPA has specified acceptable test protocols for measuring acute toxicity and estimating chronic toxicity of effluents (40 CFR 136). The selection of which of the available tests to use, interpretation of test results, and determining whether whole effluent toxicity permit limits are needed is based upon site-specific factors, state water quality standards, and EPA guidance.

The following table and list include specific recommendations, and their rationale, for characterizing whole effluent toxicity to ensure that receiving waters are free from toxic substances in concentrations that impair beneficial uses. Receiving water chemical sampling should coincide with sample collection for WET to help predict receiving water effects from

WET.

Recommended whole effluent toxicity endpoints to comply with Idaho narrative water quality standards (if a “reasonable potential” for toxicity is present).

Objective	Recommended Test	Target Endpoint	Initial Test Frequency
<i>In the mixing zone:</i> Prevention of short-term lethality to biota significant to beneficial uses within the zone of initial dilution where acute numeric criteria may be exceeded.	Salmonid 96-hour early life stage test <sup>a</sup> .	No toxicity of 100% effluent at 96 hours.	Annually, during April – June, concurrent with ambient chemical sampling.
<i>Below the mixing zones:</i> Prevention of acute and chronic toxicity to biota significant to beneficial uses at the edge of the mixing zone.	Fathead minnow and/or <i>Ceriodaphnia</i> 7-day “chronic” tests.	NOEC and IC <sub>25</sub> at 7d less than actual instream waste concentrations for existing discharges.	4X annually concurrent with ambient chemical sampling.

### **Recommendations**

1. The testing programs should include a geometric dilution series with at least 6 dilutions ranging from 100% to 0% effluent, where one dilution approximates the target concentration. Generally, this target dilution value should not be the lowest value, i.e. it should be bracketed by other dilutions in the series (not including the 0% effluent control). This bracketing is desirable to determine whether a consistent concentration-response effect is present. If no effects occur at target dilution concentrations, then this bracketing could provide an estimate of what concentrations could cause effects. For example, if Jordan Creek upstream of the discharge were measured at 20 cfs and outfall 002 at 1 cfs, the target concentration would be a receiving water concentration (RWC) of 5% effluent. A dilution series of 100%, 37%, 14%, 5%, 1.7, and 0%, obtained by dividing 100 by  $e$ , would bracket the actual RWC of 5%, and also provide a test result that approximates the worst case RWC dilution of 8:1 (12.5%), which could be informative to the mine operators and regulators. Obviously, many series could be used that would include the values 100, 0, and the actual RWC (existing outfalls).
2. Flows must be collected at the time of sampling in order to report instream waste concentrations. The WET test reports must include this information, and include summary statistics showing whether measured toxicity is above or below flow-based trigger values.
3. We are not aware of studies relating the results of the *Selenastrum* green algae growth assay to instream biological conditions for this type of effluent. Until such relationships can be documented, Idaho DEQ believes the use of the *Selenastrum* test to evaluate compliance with narrative water quality standards is not appropriate.

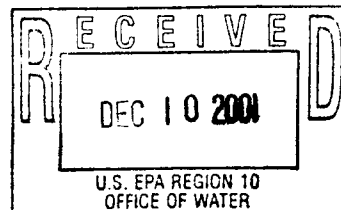
4. If trigger values do result, toxicity hazard decisions should be based on test "pass/fail" rates rather than single tests, because biological test organisms have an inherent variability. The following decisions and actions are recommended if a single test fails: (a) Initiate accelerated testing for the failed test (bi-weekly with allowance for availability of test organisms); (b) if the next 2 consecutive tests are passed, or if the next 3 out of 4 more tests are passed, then the first test would be considered a "pass"; (c) otherwise, one may reasonably conclude there is a potential for toxicity from the effluents, and formal permit limits based on whole effluent toxicity should be developed. This would involve a permit modification or re-issuance and is beyond the scope of this report. However, barring new information, typically overall test failure rates >20% would trigger toxicity identification and reduction procedures.
5. The measurement endpoints for "chronic tests" for comparison to trigger dilutions should be both no observed effect concentration (NOEC), which should be higher than the RWC, and the inhibition concentration (IC<sub>25</sub>), which should be higher than the RWC. The statistical tests should confirm one another; otherwise the test should be repeated, or considered a "fail" at the discharger's discretion.
6. The measurement endpoints for acute salmonid tests should be a 96-hour NOEC of 100% effluent.
7. While a most sensitive test cannot be confidently determined *a priori*, if "chronic" testing is warranted, if one test is consistently the most sensitive, it may be used alone. If that is the case, and if the *Ceriodaphnia* test is the most sensitive, the 7-d fathead minnow test should still be conducted annually. The *Ceriodaphnia* test is intended to predict invertebrate effects, which are also monitored instream. Instream monitoring of early life stage fish effects is more difficult due to administrative electrofishing restrictions, so lab tests are a fallback measure for fish effects.
8. Annual acute WET testing with a salmonid should be done in April-June to correspond with the presence and exposure of early life stage salmonids in the receiving waters to the effluents. Water samples for WET should be collected at the same time as the receiving water chemical sampling to help interpret the WET results.

Dilution waters for testing should have similar hardness and alkalinity to receiving waters. Preferably upstream receiving waters would be used for dilution. If logistics, or failure to meet acceptance criteria, prevent the use of receiving waters for dilution, then tests for outfall 002 should use soft synthetic dilution water prepared following recipes from EPA protocols.





STATE OF IDAHO  
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Dirk Kempthorne, Governor  
C. Stephen Allred, Director

December 4, 2001

Mr. Robert Robichaud  
United States Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, OW-130  
Seattle, WA 98101

RE: Amendment of IDEQ CWA §401 Certification of NPDES Permit No.  
ID-002646-8  
Hecla Mining Company, Grouse Creek Unit Outfall 002

Bob  
Dear ~~Mr. Robichaud~~:

We have been in communication with the Hecla Mining Company (Hecla) and Patty McGrath of your office regarding an amendment and further clarification of the State of Idaho Department of Environmental Quality (DEQ) CWA §401 Certification of the National Pollution Discharge Elimination System (NPDES) Permit No. ID-002646-8. Since the last formal activity regarding this NPDES permit over a year ago, there have been significant changes in the chemistry of the tailing pond solution and the overall status of the closure of the Grouse Creek facility. This amendment allows those changes to be incorporated into the implementation of the permit. Therefore, the DEQ provides the following certification letter with additional information added that will clarify and update key components of this permit. Those portions of this letter that appear in previous correspondence shall be superseded by the information/language in this letter.

The DEQ has considered public comments and reviewed the facts and information presented in the draft NPDES permit for the Hecla Mining Company, Grouse Creek Unit Outfall 002 discharge to the receiving water named Jordan Creek (latitude 44° 25' 19" N and longitude 114° 43' 53" W). This letter augments previous correspondence in regard to the state of Idaho's water quality certification pursuant to the provisions of Section 401 of the Federal Water Pollution Control Act (Clean Water Act), as amended and 33 USC Section 1341. If Hecla complies with the terms and conditions imposed by this permit and the conditions set forth in this 401 Certification, there is a reasonable assurance the discharge will comply with the applicable requirements of Sections 208 (e), 301, 302, 303, 306, 307 of the Clean Water Act (CWA), including the Idaho Water Quality Standards and Wastewater Treatment Requirements (IDAPA 58.01.02, Water Quality Standards).

### Mixing Zone

This correspondence includes authorization of the mixing zone for the Hecla Outfall 002, pursuant to the mixing zone policy set forth in the Idaho Water Quality Standards, IDAPA 58.01.02.060. This certification is based on new data presented to the U.S. Environmental Protection Agency (EPA)/DEQ, consultations with the staff and the information presented in the report entitled "Mixing Zone Information For Discharge Point 002 Hecla Mining Company, Grouse Creek Unit".

The DEQ finds the following mixing zones to be protective of the designated uses in Jordan Creek and authorizes the EPA to use these mixing zones in determining and recalculating the effluent limits for the listed metals, WAD Cyanide and WET:

Parameter	Mixing Zone
Cadmium	75%
Chromium	100%
Copper	50%
Lead	100%
Mercury	100%
Silver	25%
Zinc	50%
WAD Cyanide	100%
WET	100%
Recreational Criteria	100%

These authorized mixing zones minimize the toxic dilution zone and provide a zone of passage for fish based on the avoidance threshold concentrations for copper and zinc. According to the mixing zone models established in the original 401 Certification, these percentages minimize the toxic dilution zone to allow fish passage and in most cases to at least within a few feet of the outfall. The DEQ establishes the following mixing zone conditions as part of issuance of these mixing zones:

1. The DEQ has reviewed the dilution ratio stipulated in the proposed final permit. Since Hecla is in the process of writing an Engineering Evaluation, Cost, Analysis (EECA) pursuant to the CERCLA action taken for the treatment and subsequent discharge of solutions from the Grouse Creek Pond 1, calculation of the final dilution ratio will be determined following the evaluation of data generated during the EECA process. The DEQ strongly urges the EPA to provide a re-opener clause in the final permit language. This will allow the EPA to incorporate the most effective language into the final permit.

2. During the described compliance schedule for mercury (see below), Hecla shall annually conduct a bioaccumulation study of mercury accumulation in fish tissues and submit the results to DEQ. These studies must determine the level of mercury accumulated in fish present in Jordan Creek. The results of the studies shall represent fish collected above and below outfall 002. Sculpins shall be the test species, as these fish are not on US Fish and Wildlife Service (USFWS) threatened or endangered species list, are not stocked by Idaho Department of Fish and Game (IDFG) and have been sampled in Jordan Creek. Should the IDFG deny Hecla's request to obtain a collection permit due to potential concerns for the protection of species under the Endangered Species Act (ESA), Hecla (in concert with the IDFG) will submit alternative methods to acquire information germane to the protection of resident species from mercury (Hg) accumulation.

#### Trends Analysis

Collection of the sculpin fish shall follow the procedures outlined in the 401 certification prepared for the draft permit except that routine sampling would only require that four replicate samples be collected (four upstream of 002 and four downstream of 002). This is based on new information collected in 2000 and submitted by Chadwick Ecological Consultants on behalf of Hecla that indicated that fish tissue was below the MDL for this test (0.04mg/kg). The goal is to maintain this level of Hg accumulation. However, if the results of Hg concentrations in fish downstream of the discharge reveal a statistically significant increase in Hg concentrations when compared to the upstream fish concentrations (using four replicated samples), then a follow-up set of verification samples may be required. Hecla shall notify the DEQ within 10 calendar days of receiving the laboratory results. The timing for the follow-up sampling campaign will be determined by the DEQ and will be based on the results of the data submitted by Hecla collected during the routine analysis.

#### Impacts Analysis

Should the results of any one sculpin tissue analysis reveal that tissues contained greater than 0.3mg/kg of Hg, Hecla shall notify the DEQ of findings of the bioaccumulation monitoring within seven calendar days of obtaining the results. Once the laboratory has verified the results of the tissue analyses (a period of time not to exceed 14 calendar days), Hecla shall also immediately initiate an investigation of the sources of mercury and take steps to reduce mercury discharges. Hecla shall submit within 60 calendar days, a report to DEQ describing the results of the source identification and steps already implemented to reduce mercury concentrations in their discharge.

Hecla may propose that the annual bioaccumulation study may be conducted in conjunction with any such studies as may be required or recommended under the CERCLA, Administrative Order on Consent. All reports will be copied to the appropriate EPA contact person who will forward them on to other appropriate federal agencies.

3. Hecla shall annually conduct an acute bioassay test using rainbow trout as an additional monitoring requirement. The bioassay protocols were attached in previous correspondence. Results need to be submitted to DEQ for evaluation.
4. An annual hard copy report of all monitoring including all data summarized in electronic form will be submitted to DEQ no later than April 1 of each year.

#### Monitoring Requirements

The permittee shall annually conduct biomonitoring of macroinvertebrates and fish above and below the mixing zone of outfall 002. The annual biomonitoring shall be conducted after seasonal high flow conditions have receded but before annual low flows (i.e. July or August). The permittee is required to obtain collection permits from IDFG for collection of fish. Should the IDFG deny Hecla's request to obtain a collection permit due to potential concerns for the protection of species under ESA, Hecla (in concert with IDFG) will submit alternative methods to acquire necessary biomonitoring information. The permittee shall submit the results of the biomonitoring to IDEQ with the annual report due each year no later than April 1. The required biomonitoring of this certification may be conducted pursuant to the Comprehensive Environmental Water Quality Monitoring Plan and Grouse Creek Task Force recommendations or may be in conjunction with the CERCLA - AOC or EECA conducted pursuant to the AOC.

#### Compliance Schedule

This certification also includes authorization, pursuant to the Water Quality Standards, IDAPA 58.01.02.400.03, for a compliance schedule to meet the metal, WET and WAD cyanide effluent limits as set forth in the final permit, with the following interim limits:

1. The current final draft permit identifies discharge volumes based on an 8:1 dilution ratio in Jordan Creek (calculated by dividing the Jordan Creek flow upstream of the outfall (in cfs) by the maximum daily effluent flow (in cfs)). The DEQ, EPA and Hecla have reviewed this criteria and concur that an 8:1 ratio may not be optimum for discharges at site 002 over a long term period given the processes that will be implemented to close the Grouse Creek facility. Because additional information regarding the overall management of water at the Grouse Creek site will be generated during the EECA process, the compliance schedule for the dilution ratio will be extended to follow the finalization of the EECA. It is anticipated that the final EECA will be published before October 1, 2002. Therefore, the compliance schedule for the dilution ratio will be extended until October 1, 2002.
2. Current performance conditions for copper, zinc, and WET listed in the following table shall be the year round interim permit limits effective for three years after the issuance of this permit. These values were determined from the highest daily

and average monthly values reported by Hecla to EPA from August 1999 to October 2001, except mercury, which was reported to be less than 0.2 ug/l.

Parameter	Maximum Daily (ug/l)	Average Monthly (ug/l)
Copper ‡	35	14
Mercury	0.2	0.2
Zinc ‡	200	100

‡ these compliance values apply to the high flow tier ( 30cfs) – the low flow tier must meet EPA established effluent limits established in the permit.

3. Based on data submitted by Hecla, the current performance conditions for WAD cyanide are less than the MDL; therefore, no compliance schedule was established. However, should the EECA establish an alternate procedure for discharge to 002, Hecla and DEQ may modify the compliance schedule for WAD cyanide.
4. There are no compliance schedules for cadmium, lead, silver, pH, and total suspended solids.
5. During the compliance schedule (three years beyond the established date the permit is issued), WET testing, using the more sensitive of either the chronic fathead minnow or Ceriodaphnia, shall be conducted four times a year. The trigger concentration will be based on the 8:1 dilution ratio, unless this ratio is modified through a re-opener clause by information provided in the EECA. If toxicity occurs at or below the trigger concentration the discharger shall initiate accelerated testing or toxicity reduction evaluation as described in the attachment that appeared in the original 401 Certification.

The DEQ places the following compliance schedule conditions on this permit as part of authorization of the compliance schedule:

1. Hecla shall submit to DEQ for approval a compliance plan that includes a schedule for long-term water treatment and the plans for future discharges from 002. The submittal shall outline Hecla's plan for attaining compliance with the NPDES permit beyond the three year period (established compliance schedule). The compliance plan shall be submitted to the DEQ following submittal of the final EECA or no later than October 1, 2002.
2. Hecla shall annually report to DEQ, the progress made to meet the compliance schedule. That report is due no later than April 1, 2002.

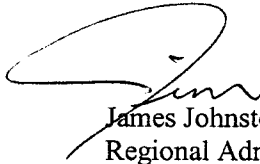
This certification is also conditioned upon the requirement that any material modification of the permit or the permitted activities, including, but without limitation, any modifications of the permit to reflect new or modified TMDLs, waste load allocation, site-specific criteria, variances, or other new information, shall first be provided to DEQ

for review to determine compliance with state Water Quality Standards and to provide additional certification pursuant to Section 401 of the CWA. Finally, the DEQ recommends that any monitoring and/or studies required under this permit be conducted in conjunction with any such studies as may be required or recommended under the CERCLA Consent Order or as reflected in the results from the upcoming EECA.

This CWA Section 401 Water Quality Certification and associated conditions may be appealed by submitting a request in writing within 35 days for a hearing, pursuant to Title 67, Chapter 52, Idaho Code, and the Rules Governing Contested Case Proceedings and Declaratory Rulings, Title 5, Chapter 3, IDAPA 16.05.03.000 to 16.05.03.999. The request for a hearing must be filed with the hearing coordinator at the following address:

Hearing Coordinator  
Idaho Department of Environmental Quality  
1410 North Hilton  
Boise, ID 83706

Sincerely;



James Johnston  
Regional Administrator  
DEQ, IFRO

cc: Steve Allred, Director, DEQ-State Office  
David Mabe, Water Program Administrator, DEQ-State Office  
Doug Conde, Deputy Attorney General, Office of the Attorney General-DEQ  
John Lawson, Mark Schumar, DEQ- State Office  
Barbara Jewell, DEQ-Idaho Falls Regional Office